



STATE OF WASHINGTON
DEPARTMENT OF ECOLOGY

REPORT OF EXAMINATION
TO APPROPRIATE PUBLIC WATERS OF THE STATE OF WASHINGTON

- ☒ Surface Water (Issued in accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the Department of Ecology.)
- ☐ Ground Water (Issued in accordance with the provisions of Chapter 263, Laws of Washington for 1945, and amendments thereto, and the rules and regulations of the Department of Ecology.)

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|-----------------------------------|--------------------------------|---------------|--------------------|
| PRIORITY DATE January 13, 1997 | APPLICATION NUMBER S2-29452 | PERMIT NUMBER | CERTIFICATE NUMBER |
|-----------------------------------|--------------------------------|---------------|--------------------|

| | | | |
|--|-------------------|---------------|---------------------|
| NAME Gregory L. Hill | | | |
| ADDRESS (STREET) 1215 North 47th Street | (CITY) Seattle | (STATE) WA | (ZIP CODE) 98103 |

PUBLIC WATERS TO BE APPROPRIATED

| | | |
|--|--|-----------------------------------|
| SOURCE Lake Pleasant | | |
| TRIBUTARY OF (IF SURFACE WATERS) Lake Creek | | |
| MAXIMUM CUBIC FEET PER SECOND 0.02 | MAXIMUM GALLONS PER MINUTE | MAXIMUM ACRE FEET PER YEAR 0.2 |
| QUANTITY, TYPE OF USE, PERIOD OF USE 0.2 Acre-feet per year | Single domestic supply (indoor use only) | Year-round as needed |

LOCATION OF DIVERSION/WITHDRAWAL

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| APPROXIMATE LOCATION OF DIVERSION-WITHDRAWAL Approximately 1,900 feet south and 630 feet west of the northeast corner of Section 35. |
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|--|---------------|-------------------|--------------------------------|----------------|-------------------|
| LOCATED WITHIN (SMALLEST LEGAL SUBDIVISION) SE1/4 NE1/4 | SECTION 35 | TOWNSHIP N. 30 | RANGE, (E. OR W.) W.M. 13 W | W.R.I.A. 20 | COUNTY Clallam |
|--|---------------|-------------------|--------------------------------|----------------|-------------------|

RECORDED PLATTED PROPERTY

| | | |
|-----|-------|------------------------------------|
| LOT | BLOCK | OF (GIVE NAME OF PLAT OR ADDITION) |
|-----|-------|------------------------------------|

LEGAL DESCRIPTION OF PROPERTY ON WHICH WATER IS TO BE USED

Parcel 9 as recorded in Volume 19 of surveys, Page 56, Records of Clallam County, Washington on November 6, 1990, located in the SE1/4 of Section 35, Township 30 North, Range 13 west Willamette Meridian.

DESCRIPTION OF PROPOSED WORKS

The proposed surface water diversion has not been installed, but will consist of a screened intake, pump, and conveyance line to deliver water to one planned house. Domestic wastewater would be disposed of through an on-site septic system that has been installed.

DEVELOPMENT SCHEDULE

| | | |
|---|--|---|
| BEGIN PROJECT BY THIS DATE: November 1, 2010 | COMPLETE PROJECT BY THIS DATE: November 1, 2014 | WATER PUT TO FULL USE BY THIS DATE: November 1, 2015 |
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REPORT

BACKGROUND

On January 13, 1997, Gregory Hill filed an application (S2-29452) with the Washington State Department of Ecology (Ecology) for a water right permit to appropriate public surface water. The applicant requested authorization for an instantaneous diversion (Qi) of 0.02 cubic feet per second (cfs) and a total annual diversion volume (Qa) of 45,000 gallons per year, or about 0.14 acre-feet per year, for the purpose of single domestic supply. The proposed domestic supply would be for non-potable purposes (e.g., showers and toilets) and would not be for drinking water use.

The project site is located adjacent to Lake Pleasant, within the Sol Duc sub-basin of the Quillayute watershed of the Sol Duc-Hoh Water Resource Inventory Area (WRIA) 20, in Clallam County, Washington.

Notice of the proposed appropriation was published in the *Forks Forum* of Forks, Washington, on August 13 and 20, 2009. Due to an error in the published legal description of the point of diversion an amended notice of appropriation was published in the *Forks Forum* on October 29 and November 5, 2009. No protests were received by Ecology following either public notice.

Based on the provisions of RCW 43.21A.690 and RCW 90.03.265, this application has been processed by Aspect Consulting, LLC (Aspect Consulting) under Ecology Cost-Reimbursement Assignment No. ASP16 (master contract No. C0500006).

INVESTIGATION

In consideration of this application, Aspect Consulting reviewed available documents pertaining to the application’s site conditions, projected water demand, and the potential effect on existing water right holders. This included the information submitted by the applicant and pertinent Ecology records including well logs, water rights records, and well construction reports. The review also included reports from multiple investigations characterizing the hydrogeology and water quality of the Sol Duc River valley, as well as the documents produced under the watershed planning process, including the *Watershed Management Plan* (Golder 2008).

A site visit was performed on October 9, 2009. Joe Morrice of Aspect Consulting visited the site, including inspection of the proposed point of diversion and place of use. A telephone interview with the applicant to confirm the location of the proposed point of diversion and water use was also performed.

Using this information, Aspect Consulting evaluated water availability and potential effects of the proposed appropriation on existing groundwater and surface water rights. Each of the four requirements specified in RCW 90.03.290 were individually examined and are presented below.

Project Description

The applicant intends to build a vacation cabin to replace a small existing cabin on a 5 acre parcel on the south shore of Lake Pleasant. The existing cabin does not currently have water supply. A septic drain field was installed at the site to service the new cabin, but is not currently in use. The proposed water use would be limited to non-potable purposes (e.g., showers and toilets) and would not include drinking water use.

Site Description

The proposed point of diversion is located just outside of the Town of Beaver, in the southeast quarter of the northeast quarter of Section 35 in Township 30 North, Range 13 West Willamette Meridian.

The proposed surface water diversion has not been installed, but will consist of a screened intake, pump, and conveyance line to deliver water to one planned house. Domestic wastewater would be disposed of through an on-site septic system that has been installed.

Other Appurtenant Water Rights

A review of water rights records found no other existing water right permits, claims, or certificates for the intended place of use.

Hydrogeologic/Hydrologic Assessment

The hydrogeology of the Sol Duc River valley is dominated by thick glacial sediments forming a broad valley overlying Miocene and Eocene bedrock (sandstone, shale, and conglomerate). The bedrock structure is the result of northeast trending high-angle strike-slip faults and continued rapid tectonic uplift of the Olympic Mountains. Thick layers of sediment were subsequently deposited in the structural basin by multiple glacier advances and retreats, with the last glaciation retreating approximately 15,000 years ago. It is reported that the valley bottoms along the western side of the Olympic Mountains in WRIA 20 are inundated with several hundred feet of glacial outwash and glaciolacustrine silt deposits (Golder 2008). Since the last glaciation, the Sol Duc River has established a meandering channel across the valley floor, becoming entrenched along several reaches.

WRIA 20 has the highest annual rainfall of any basin in the state, with an average ranging from 80 inches near the coast to 240 inches in the higher elevations of the Olympic Mountains. Flow in the Sol Duc River originates from a combination of snowmelt and rainfall.

Habitat

The mainstem of the Sol Duc River hosts salmonids from the mouth to Sol Duc Falls, nearly 60 miles upstream, with 89 percent of the streams in the watershed providing habitat for anadromous and resident fish species, including Lake Creek. In total, 11 distinct salmonid stocks have been identified in the basin. The health of Sol Duc salmon runs are generally considered to be healthy (Golder 2008).

Report Continued

WDFW operate two fish hatcheries on the Sol Duc River – one at RM 30 (in cooperation with the Quileute Tribe) and another at the Snider Creek confluence (RM 44) in corporation with the Olympic Peninsula Guides Association.

Lake Pleasant

The subject application seeks a permit to divert water from Lake Pleasant. Lake Pleasant is located adjacent to the Sol Duc River at approximate river mile (RM) 30, just outside the town of Beaver, Washington. The lake is perched on the north side of the Sol Duc River valley, just below the prominent ridgeline bounding the valley to the north.

The primary inflow to Lake Pleasant is Upper Lake Creek, originating in the drainage basin located to the northeast. Lower Lake Creek drains Lake Pleasant and flows southwesterly several miles to the confluence with the Sol Duc River. Multiple small unnamed tributaries also contribute water to both Lake Pleasant and Lake Creek.

Lake Pleasant is approximately 499 acres in size, with a maximum depth of 50 feet, impounding nearly 16,000 acre feet of water at a typical stage elevation of 390 feet mean sea level (msl; Wolcott 1973). The approximate elevation of the adjacent reach of the Sol Duc River is 350 feet msl.

Well logs surrounding Lake Pleasant indicate that Lake Pleasant is perched on a thick sequence of silt- and clay-bound sand and gravel. Shallow, perched groundwater is present adjacent to and is likely in continuity with lake. Due to the shallow depth, limited saturated thickness, and relatively fine-grained nature of the soils near the lake, the perched groundwater is not considered a suitable source of water supply. The uppermost groundwater-bearing unit encountered below the lake is approximately 120 feet below ground surface (bgs). Static groundwater levels in this unit are approximately 110 feet bgs or elevation 280 feet msl.

Instream Flow Requirements

No formal instream flow rule has been implemented for WRIA 20. However, surface water source limitations (SWSLs) have been established for the both the Sol Duc River and Lake Pleasant based on letters from Washington Department of Fish and Wildlife (WDFW). In total, two letters have been written for reaches of the Sol Duc River and one for Lake Pleasant.

In addition to SWSLs, several reaches of the Sol Duc River are on the State’s 303(d) list as being impaired for temperature, while Lake Creek is listed as being impaired for temperature and dissolved oxygen.

Consultation was completed with both the Quileute Tribe and WDFW. WDFW did not have any objections application, while the Quileute tribe did not comment.

APPLICATION EVALUATION

This Report of Examination (ROE) evaluates the application based on the conceptual model presented above. To approve the application, Ecology must issue written findings of fact and determine that each of the following four requirements of RCW 90.03.290 has been satisfied:

- (1) The proposed appropriation would be put to a beneficial use;
- (2) Water is available for appropriation;
- (3) The proposed appropriation would not impair existing water rights; and
- (4) The proposed appropriation would not be detrimental to the public welfare.

This ROE addresses these subjects in the above referenced order. Fulfillment of the four requirements determines the decision of Ecology.

Beneficial Use

In accordance with RCW 90.54.020(3), the proposed appropriation for in-house single domestic use represents a beneficial use of water. This proposed appropriation is the only available source of water to the applicant. The proposed point of diversion will be supported by the necessary infrastructure to deliver water to a toilet and shower at the fully requested rate.

Availability

No administrative or regulatory closures are identified that affect the availability of water requested under this application. In addition, no formal instream flow restrictions or closures are present in the basin and diversion of surface water from Lake Pleasant will not have a measureable effect on instream flows in the Lake Creek or the Sol Duc River.

Three Group A water systems were identified in Washington State Department of Health (DOH) records in the Lake Pleasant area. These include the Beaver transient non-community system located in the Town of Beaver, the Interfor Pacific non-transient non-community system operated by the lumber mill, and the private Smithville community water system that apparently serves parcels on the northwest side of the lake. There are two Group B systems in the area, both located on the northwest side of the lake. The place of use for the proposed appropriation on the south side of the lake is not available for hookup to any of these water systems.

The water requirement for typical in-house, single domestic non-potable use should not exceed and instantaneous rate of 0.02 cfs and a total of 180 gallons per day, or 0.2 acre-feet per year. Most of the diverted water will not be consumptively used and will ultimately return to surface water via discharge to the septic drain field.

Based on this rationale, we conclude that the quantity of water requested for use in this application is available for appropriation.

Potential for Impairment

RCW 90.03.290 and RCW 90.44.060 require a determination that a new appropriation will not impair existing rights. Lake Pleasant is perched on top of a thick sequence of clay-bound sand and gravel underlying the lake, which provides an effective barrier to hydraulic flow between Lake Pleasant surface water (perched) and surrounding groundwater. As such, groundwater can be considered a different source of water from the lake water. However, based on the continuity of surface water within the lake, all diversion from Lake Pleasant must be considered in the impairment evaluation.

Five surface water right permits and certificates authorize diversions from Lake Pleasant. The water rights are for relatively small quantities, with four being equal to or less than 0.5 afy. The fifth one is for 15 afy supporting a shingle mill at the southwest end of the lake. Table 1 lists the water rights and describes the water quantities allocated as well as the location of the point of diversion.

| Water Right Number | Name | Purpose | Priority Date | Qa in afy | Point of Diversion |
|--------------------|--------------------|----------|---------------|-----------|-----------------------------------|
| S2-20292CWRIS | Smith Shingle Co | DM FR PO | 02/20/1976 | 15 | T30N R13W Section 26 |
| S2-28181 | Santman, Jim | DS | 08/11/1992 | 0.5 | SW1/4 NE1/4, T30N R13W Section 35 |
| S2-28618 | Leppell, Jim | DS | 08/17/1994 | 0.34 | T30N R13W Section 35 |
| S2-28619 | Hendershot, Warren | DS | 08/17/1993 | 0.34 | SW1/4 NE1/4,T30N R13W Section 35 |
| S2-28725 | Soha, Louis | DS | 08/17/1993 | 0.34 | SW1/4 NE1/4,T30N R13W Section 35 |

Table 1. Surface Water Right Permits and Certificates for Lake Pleasant.

In addition, a total of 1 claim to a vested water right was identified on Lake Pleasant (belonging to Portac, Inc.).

The limited annual quantity requested (compared to the storage volume of Lake Pleasant) will not have a measurable effect on the stage of Lake Pleasant. It is also noted that all waste water will be collected in an on site septic tank and drain field. Following treatment, the water will recharge the shallow groundwater and return back to the lake. The net consumptive quantity of this appropriation is small.

Based on the collective information, impairment of existing rights is not anticipated with full use of the requested quantity.

Public Welfare

No protests to the application were received. The proposed appropriation will support the use of the vacation cabin, and no detriment to the public welfare was identified.

CONCLUSIONS

The conclusions based on the above investigation are as follow:

- 1. The proposed appropriation for in-house single domestic is a beneficial use of water. The applicant does not have an alternate source of water. Shallow, perched groundwater near the lake is an unreliable source, and a private well is not a viable alternative for water supply. Similarly, existing public water systems in the area are not available to supply the proposed place of use on the south side of the lake
- 2. The quantity of water requested for use in this application is available for appropriation.
- 3. The proposed appropriation will not impair senior water rights.
- 4. The proposed appropriation will not be detrimental to the public interest.

RECOMMENDATIONS:

I recommend an approval of application S2-29452 and issuance of a permit to allow appropriation of surface water from Lake Pleasant at a maximum instantaneous withdrawal rate (Qi) of 0.02 cfs and a specified annual quantity (Qa) of 0.2 afy. The period of use for in-house single domestic use will be year round, as needed.

The amount of water granted is a maximum limit that shall not be exceeded and the water user shall be entitled only to that amount of water within the specified limit that is beneficially used and required.

The permit shall be subject to existing rights and the following provisions:

Use of water under this permit shall be limited to in-house use only.

An approved measuring device shall be installed and maintained for the source identified by this water right in accordance with the rule “Requirements for Measuring and Reporting Water Use”, Chapter 173-173 WAC.

Water use data shall be recorded annually and maintained by the property owner for a minimum of five years, and shall be promptly submitted to Ecology upon request.

Chapter 173-173 WAC describes the requirements for data accuracy, device installation and operation, and information reporting. It also allows a water user to petition Ecology for modifications to some of the requirements. Installation, operation and maintenance are enclosed as a document entitled “Water Measurement Device Installation and Operation Requirements”.

Department of Ecology personnel, upon presentation of proper credentials, shall have access at reasonable times, to the records of water use that are kept to meet the above conditions, and to inspect at reasonable times any measuring device used to meet the above conditions.

The permit is issued subject to Washington Department of Fish and Wildlife screening criteria as outlined in a hydraulic project approval. Please contact the Department of Fish and Wildlife, 600 Capital Way North, Olympia, Washington, 98501-1091, Attention: Habitat Management Division, (360) 902-2534, to obtain specific requirements for your project.

The Permittee is advised that notice of Proof of Appropriation of water (under which the final certificate of water right is issued) should not be filed until the permanent distribution system has been constructed and that quantity of water allocated by the permit to the extent water is required, has been put to beneficial use.

This authorization shall in no way excuse the Permittee from compliance with any applicable federal, state, or local statutes, ordinances, or regulations including those administered by other programs of the Department of Ecology and those administered by local agencies.

Report prepared by Joseph Morrice, LHG, Aspect Consulting, LLC.

REVIEWED BY: Phil Crane Date: 2/23/2011
Phil Crane

FINDINGS OF FACT AND DECISION

Upon reviewing the above report, I find all facts, relevant and material to the subject application, have been thoroughly investigated. Furthermore, I find water is available for appropriation and the appropriation as recommended is a beneficial use and will not be detrimental to existing rights or the public welfare.

Therefore, I ORDER a permit be issued under Surface Water Application Number S2-29452, subject to existing rights and indicated provisions, to allow appropriation of public surface water for the amount and uses specified in the foregoing report.

Signed at Olympia, Washington, this 23rd day of February, 2011.

Thomas Loranger

Thomas Loranger
Water Resources Supervisor
Southwest Regional Office

CITATIONS

Golder Associates, 2008, Water Resource Inventory Area (WRIA) 20 Watershed Management Plan, August 20, 2008.

Wolcott, E. E, 1973, Water Supply Bulletin No. 14. Lakes of Washington, Volume I, Western Washington, 1973.

